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EXAMINER

WOLDETATIOS,Y

ART UNIT

PAPER NUMBER

2749

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SK

Office Action Summary

Application No.
09/219,199

Applicant(s)
Kransmo et al.

Examiner
Yemane Woldetatos

Group Art Unit
2749



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-46 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-46 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2. Claims 1, 5-8, 13, 14, 16-20, 23, 24, 28-31, 36, 37,39-43 and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Camp, Jr. et al. (6075987).

Claims 1 and 24. Camp teaches in a wireless telecommunications system having a Base Transceiver Station and a mobile terminal equipped with a Global Positioning System (GPS) equipped receiver, the Base Transceiver Station having operational control of the GPS-equipped mobile terminal, a method for determining the approximate position of the GPS-equipped mobile terminal, said method comprising the steps of:

demodulating signals received from a multiplicity of GPS satellites at a reference GPS receiver, said reference GPS receiver being connected to the wireless telecommunications system and having a determinate physical location relative to the Base Transceiver Station (see abstract);

recovering respective navigational data signals from each of said demodulated GPS signals, which is inherent in the system;

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originating a request for approximate navigational information from the GPS-equipped mobile terminal to the Base Transceiver Station (col. 5 line 64 to col. 6 line 5);

transmitting recovered navigational data signals to the GPS-equipped mobile terminal responsive to said request for approximate navigational information (col. 6 lines 38-56); and

determining, from said transmitted navigational data signals, the approximate location of the GPS-equipped mobile terminal (col. 7 lines 31-58).

Claims 5, 17, 28 and 40. Camp teaches the method according to Claim 1, wherein said step of originating said request for approximate locational information from the GPS-equipped mobile terminal to the Base Transceiver Station is responsive to activation of the mobile terminal (col. 5 line 64 to col. 6 line 5).

Claims 6, 18, 29 and 41. Camp teaches the method according to Claim 1, wherein said step of originating said request for approximate location information from the GPS-equipped mobile terminal to the Base Transceiver Station is responsive to placing a call from the GPS-equipped mobile terminal to one of a set of designated numbers, which is inherent in the system.

Claim 7, 19, 30 and 42. Camp does not mention the method according to Claim 6, wherein said one designated number is associated with an emergency service. However, official notice is taken that emergency service is well known in the art.

Claims 8, 20, 31 and 43. Camp teaches the method according to Claim 1, wherein said step of originating said request for approximate locational information from the GPS-equipped

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mobile terminal to the Base Transceiver Station is responsive to a determination by the reference GPS receiver that the GPS signal strength at the GPS-equipped mobile terminal is inadequate to permit initialization of the reference GPS receiver associated with the GPS-equipped mobile terminal within a desired response time (col. 6 lines 38-56).

Claims 13 and 36. Camp teaches in a wireless telecommunications system having a Base Transceiver Station and a mobile terminal equipped with a Global Positioning System (GPS) receiver, the Base Transceiver Station having operational control of the GPS equipped mobile terminal, a method for determining the approximate position of the GPS-equipped mobile terminal, said method comprising the steps of:

demodulating signals received from a multiplicity of GPS satellites at a reference GPS receiver, said reference GPS receiver being connected to the wireless telecommunications system and having a determinate physical location relative to the Base Transceiver Station (see abstract);

computing an estimated location of said reference GPS receiver using said demodulated signals from said GPS satellites (col. 1 lines 24-40);

originating a request for approximate locational information from the GPS-equipped mobile terminal to the Base Transceiver Station (col. 5 line 64 to col. 6 line 5);

transmitting said estimated location of said reference GPS receiver from the Base Transceiver Station to the GPS-equipped mobile terminal responsive to said request for approximate locational information (col. 6 lines 38-56); and

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determining, from said transmitted location of said reference GPS receiver, the approximate location of the GPS-equipped mobile terminal (col. 7 lines 31-58).

Claims 14 and 37. Camp teaches the method according to Claim 13, wherein said step of computing the estimated location of said reference GPS receiver further comprises the steps of:

recovering respective navigational data signals from each of said demodulated GPS signals from said GPS satellites; and computing, from the respective navigational data signals, the location of said reference GPS receiver, which is inherent in the system.

Claims 16 and 39. Camp teaches the method according to Claim 13, wherein said method further comprises, after said step of computing and before said step of originating, the step of storing said estimated location of said reference GPS receiver in said wireless telecommunications system, which is inherent in the system.

Claim 23 and 46. Camp teaches the method according to Claim 13, wherein the estimated location of said reference GPS receiver is used as the approximate location of the GPS-equipped mobile terminal (col. 7 lines 31-58).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-4, 15, 25-27 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp in view of Loomis (5899957).

Claims 2, 3, 25 and 26. Camp fails to teach the method according to Claim 1, wherein said signals from the GPS satellites are Standard or precise Positioning Service signals received on L1 and L2 frequencies, said L1 and L2 frequencies being centered at about 1575.42 MHZ and 1227.42 MHZ. However, Loomis teaches the standard and precise positioning services (col. 18 lines 22-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Camp's teaching by Loomis's in order to provide access to standard and precise positioning system users.

Claims 4, 15, 27 and 38. Camp fails to teach the method according to Claim 1, wherein said approximate navigational information comprises the identities of a plurality of GPS satellites within ranging distance, the orbital parameters associated with said plurality of GPS satellites, clock correction information and differential correction information associated with said plurality of GPS satellites. However, Loomis teaches the received signal from the GPS satellites comprises the claimed information (col. 18 lines 9-21).

5. Claims 9, 10, 21-22, 32, 33, 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp in view of Duffet-Smith et al. (6094168).

Claims 9, 21, 32 and 44. Camp fails to teach the method according to Claim 1, wherein said step of transmitting is performed as a Cell Broadcast Short Message Service (SMS) message

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of the wireless telecommunications system. However, Smith teaches Cell broadcast Short Message Service (col. 8 lines 14-53). Therefore, it would have been obvious to one of ordinary skill in the art to modify Camp's teaching by Smith's in order to avoid traffic channel congestion.

Claims 10, 22, 33 and 45. Camp fails to teach the method according to Claim 1, wherein said step of transmitting is performed over a Broadcast Control Channel (BCCH) of the wireless telecommunications system. However, Smith teaches transmitting over a BCCH (col. 8 lines 14-53). Therefore, it would have been obvious to one of ordinary skill in the art to modify Camp's teaching by Smith's in order to avoid traffic channel congestion.

6. Claims 11, 12, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp in view of Hermansson et al. (5987319).

Claims 11, 12, 34 and 35. Camp fails to teach the method according to Claim 1, further comprising the step of periodically transmitting a Timing Advance parameter from the Base Transceiver Station to the GPS equipped mobile terminal to dynamically compensate for varying distances between the GPS-equipped mobile terminal and the Base Transceiver Station. However, Hermansson teaches Timing Advance parameter (col. 5 lines 11-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Camp's teaching by Hermansson's in order to update the changing location information of the mobile terminal.

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Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mansell et al. (5223844), Denninger (5502446), Janky (5629693), Hutchinson (5223691), Renard et al. (6081691), Ando (4983980), Tiwari et al. (5477228), Cahan et al. (5535278), Ward et al. (5185610) and Cederval (6011974) teach method and system for determining position of a cellular mobile terminal in a cellular communication networks.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yemane Woldetatos whose telephone number is (703) 308-9596. The examiner can normally be reached on Monday to Thursday from 8:00 am to 5:30 pm. The examiner can also be reached on every alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Daniel Hunter, can be reached on (703) 308-6732. The fax phone number for the organization where the application or proceedings is assigned is (703) 308-6306 or (703) 308-6296.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Yemane Woldetatos

9-26-00


THANH CONG LEO
PRIMARY EXAMINER
